10/566599 IAP9 Rec'd PCT/PTO 31 JAN 2005

WO 2005/012340

PCT/GB2004/003231

-1-

SEQUENCE LISTING

5																							
	<110>		Syngenta Ltd																				
10	<120>		Nematicidal Proteins																				
15	<13	0>	7029	8																			
20	<150>		GB 0318109.6																				
	<151>		2004-08-01																				
25	<16	0>	43																				
30	<17	0>	Pate	ntIn	ver	sion	3.1																
	<21	0>	1																				
35	<211>		142																				
	<212>		PRT																				
40	<21	3>	Lepi	sta 1	nuda																		
	<40	0>	1																				
4 5	Met 1	Ser	Gln	Glu	Ile 5	Val	Gln	Ser	Gly	Gln 10	Thr	Tyr	Ile	Ile	Thr 15	Asn							
50	Ala	Lys	Ser	Gly 20	Thr	Val	Val	Asp	Leu 25	Ser	Gly	Glu	Asp	Asn 30	Lys	Ser							
55	Ile	Ile	Gly 35	Phe	Pro	Lys	His	Gly 40	Gly	Thr	Asn	Gln	Arg 45	Trp	Thr	Leu							
	Asn	Trp 50	Thr	Gly	Lys	Ser	Trp 55	Thr	Phe	Arg	Ser	Val 60	Ser	Ser	Glu	Met							

- 2 -

Tyr Leu Gly Leu Asn Gly Ser Pro Ser Asp Gly Thr Lys Leu Val Ala 70 75 5 Val Thr Thr Pro Val Glu Trp His Ile Trp His Asp Glu Val Asp Pro 90 10 Ser Thr Tyr Arg Ile Phe Val Pro Phe Thr Thr Phe Asn Met Asp Leu 105 15 Tyr Ala Gln Gly Ser Ala Ala Pro Gly Thr Pro Ile Thr Thr Trp Tyr 115 120 Thr Trp Lys Gly Ile His Gln Thr Trp Arg Phe Glu Leu Ala 20 130 135 <210> 2 25 <211> 429 <212> DNA <213> Lepista nuda 30 <400> 2 atgtcgcaag aaattgttca atcaggacaa acctacatca tcactaacgc caaatccggc 35 acagttgttg acctttcggg cgaagacaac aaatctatta ttggatttcc caagcatgga 40 ggaacaaatc agaggtggac cctcaactgg acagggaaga gttggacttt ccgctccgtt tettetgaaa tgtatettgg eetgaatgge tegeegtetg atggaacaaa aetggtagee 45 gtgaccaccc ctgttgagtg gcacatctgg cacgacgaag ttgacccttc aacttatcgt 300 atctttgtac ctttcaccac attcaacatg gacctctacg cccaaggtag tgccgcccct 50 ggtacgccta tcacaacttg gtatacatgg aagggcatcc accaaacgtg gaggtttgaa 420 55 ctagcttag 429 <210> 3

- 3 -

<211> 17

<212> PRT

5 <213> Lepista nuda

<220>

10

<221> MISC_FEATURE

<222> (2)..(2)

15 <223> Xaa is glutamine or lysine

<220>

20

<221> MISC_FEATURE

<222> (4)..(4)

25 <223> Xaa is leucine or isoleucine

<220>

30

<221> MISC_FEATURE

<222> (6)..(6)

35 <223> Xaa is glutamine or lysine

<220>

40

<221> MISC_FEATURE

<222> (9)..(9)

45 <223> Xaa is glutamine or lysine

<220>

.50

<221> MISC_FEATURE

<222> (12)..(12)

55 <223> Xaa is leucine or isoleucine

<220>

-4-

```
<221> MISC_FEATURE
     <222> (13)..(13)
  5 <223> Xaa is leucine or isoleucine
     <400> 3
 10
     Glu Xaa Glu Xaa Val Xaa Ser Gly Xaa Thr Tyr Xaa Xaa Thr Asn Ala
15 Lys
    <210> 4
20
   <211> 20
    <212> PRT
25 <213> Lepista nuda
    <220>
30
    <221> MISC_FEATURE
    <222> (1)..(1)
35 <223> Xaa is leucine or isoleucine
    <220>
    <221> MISC_FEATURE
    <222> (12)..(12)
45 <223> Xaa is leucine or isoleucine
    <400> 4
50
    Xaa Val Ala Val Thr Thr Pro Val Glu Trp His Xaa Trp His Asp Glu
55 Val Asp His Thr
    <210> 5
```

<211> 18
<212> PRT

5 <213> Lepista nuda

<220>

10 <221> MISC_FEATURE

<222> (7)..(7)

15 <223> Xaa is leucine or isoleucine

<220>

20

<221> MISC_FEATURE

<222> (9)..(9)

25 <223> Xaa is leucine or isoleucine

<400> 5

30

Trp Ser Ser Glu Met Tyr Xaa Gly Xaa Asn Gly Ser Pro Ser Asp Gly 1 5 10 15

35 Thr Lys

<210> 6

<211> 16

<212> PRT

45 <213> Lepista nuda

<220>

50

<221> MISC_FEATURE

<222> (10)..(10)

55 <223> Xaa is leucine or isoleucine

<400> 6

```
Ala Val Thr Thr Pro Val Glu Trp His Xaa Trp His Asp Glu Val Asp
    <210> 7
     <211> 8
     <212> PRT
10
     <213> Lepista nuda
15 <220>
     <221> MISC_FEATURE
     <222> (4)..(4)
20
     <223> Xaa is leucine or isoleucine
25
    <220>
    <221> MISC_FEATURE
    <222> (6)..(6)
30
     <223> Xaa is leucine or isoleucine
35
   <220>
    <221> MISC_FEATURE
    <222> (8)..(8)
40
    <223> Xaa is phenylalanine or oxidised methionine
45
    <400> 7
    Ser Gly Asn Xaa Gly Xaa Tyr Xaa
50
    <210> 8
    <211> 8
    <212> PRT
    <213> Lepista nuda
```

```
<220>
     <221> MISC_FEATURE
 5 <222> (1)..(1)
     <223> Xaa is phenylalanine or oxidised methionine
10
     <220>
    <221> MISC_FEATURE
15 <222> (3)..(3)
    <223> Xaa is leucine or isoleucine
20
    <220>
    <221> MISC_FEATURE
25 <222> (5)..(5)
    <223> Xaa is leucine or isoleucine
30
    <400> 8
    Xaa Tyr Xaa Gly Xaa Asn Gly Ser
35
    <210> 9
    <211> 5
    <212> PRT
    <213> Lepista nuda
45
    <220>
    <221> MISC_FEATURE
    <222> (4)..(4)
    <223> Xaa is leucine or isoleucine
55
    <400> 9
    Thr Val Asp Xaa Ser
```

```
<210> 10
 5 <211> 17
     <212> PRT
     <213> Lepista nuda
 10
     <220>
15 <221> MISC_FEATURE
     <222> (1)..(1)
     <223> Xaa is glutamine or lysine
20
     <400> 10
    Xaa Ser Ala Ala Pro Gly Ser Ser His Thr Thr Gly Glu Tyr Thr Trp
                                     10
    Lys
30
    <210> 11
   <211> 7
    <212> PRT
    <213> Lepista nuda
40
    <400> 11
    Asn Ser Val Tyr Thr Trp Lys
    <210> 12
50
    <211> 20
    <212> DNA
55 <213> Artificial Sequence
```

<220>

```
<223> Primer
     <220>
 5 <221> modified_base
     <222> (3)..(3)
     <223> I
10
    <220>
15 <221> modified_base
    <222> (9)..(9)
    <223> I
20
    <220>
25 <221> modified_base
    <222> (15)..(15)
    <223> I
30
    <220>
35 <221> modified_base
    <222> (18)..(18)
    <223> I
40
    <400> 12
    gggmaracgt ayhtghtgac
45 20
    <210> 13
50 <211> 19
    <212> DNA
   <213> Artificial Sequence
55
   <220>
```

60 <223> Primer

```
- 10 -
```

```
<220>
    <221> modified_base
     <222> (8)..(8)
     <223> I
10
    <220>
    <221> modified_base
15
    <222> (11)..(11)
    <223> I
20
    <220>
    <221> modified_base
25
    <222> (17)..(17)
    <223> I
30
    <400> 13
    argarhtggt gmarwsggg
35
    <210> 14
    <211> 20
    <212> DNA
    <213> Artificial Sequence
45
    <220>
    <223> Primer
50
    <220>
    <221> modified_base
55 <222> (6)..(6)
    <223> I
```

```
<220>
     <221> modified_base
 5 <222> (9)..(9)
    <223> I
10
    <220>
    <221> modified_base
15 <222> (12)..(12)
    <223> I
20
    <220>
    <221> modified_base
25 <222> (18)..(18)
    <223> I
30
    <400> 14
    gcrttggtga dgadrtaggt
35
    <210> 15
    <211> 20
   <212> DNA
    <213> Artificial Sequence
45
    <220>
    <223> Primer
   <220>
    <221> modified_base
    <222> (3)..(3)
```

<223> I

```
<220>
    <221> modified_base
 5 <222> (6)..(6)
    <223> I
10
    <220>
    <221> modified_base
15 <222> (12)..(12)
    <223> I
20
    <220>
    <221> modified_base
25 <222> (15)..(15)
    <223> I
30
    <400> 15
    tkgccgswyt kgacgadytc
35
    <210> 16
    <211> 20
   <212> DNA
    <213> Artificial Sequence
45
    <220>
    <223> Primer
50 <220>
   <221> modified_base
   <222> (3)..(3)
    <223> I
```

```
<220>
     <221> modified_base
 5 <222> (15)..(15)
     <223> I
10
     <400> 16
     gtggartggc ayhtgtggca
15
    <210> 17
    <211> 20
20 <212> DNA
    <213> Artificial Sequence
25
    <220>
    <223> Primer
30 <220>
    <221> modified_base
    <222> (3)..(3)
35
    <223> I
40
   <220>
    <221> modified_base
    <222> (6)..(6)
45
    <223> I
50 <220>
    <221> modified_base
    <222> (9)..(9)
55
    <223> I
```

- 14 -

```
<220>
    <221> modified_base
 5 <222> (12)..(12)
    <223> I
10
    <400> 17
    acgacgccgg tggartggca
15
    <210> 18
    <211> 20
20 <212> DNA
    <213> Artificial Sequence
25
    <220>
    <223> Primer
30 <220>
    <221> modified_base
    <222> (6)..(6)
35
    <223> I
40
   <400> 18
    tgrtcgacyt crtcrtgcca
    20
45 <210> 19
    <211> 20
    <212> DNA
50
    <213> Artificial Sequence
55 <220>
    <223> Primer
    <220>
60
```

- 15 -

```
<221> modified_base
```

<222> (9)..(9)

5 <223> I

<400> 19

10 tcrtgccaga drtgccaytc

20

<210> 20

15 <211> 20

<212> DNA

20 <213> Artificial Sequence

<220>

25

<223> Primer

<400> 20

aattaaccct cactaaaggg

30 20

<210> 21

35 <211> 21

<212> DNA

<213> Artificial Sequence

40

<220>

45 <223> Primer

<400> 21

actaaaggga acaaaagctg g

21

<210> 22

<211> 16

22

50

<212> DNA

<213> Artificial Sequence

```
<220>
 5 <223> Primer
    <400> 22
    gtaaaacgac ggccag
10
    <210> 23
    <211> 18
15
    <212> DNA
    <213> Artificial Sequence
20
    <220>
    <223> Primer
    <400> 23
    caggasaaca gctatgac
    18
30
    <210> 24
    <211> 21
35 <212> DNA
    <213> Artificial Sequence
40
    <220>
    <223> Primer
45 <400> 24
    tcatcactaa cgccaaatcc g
    21
50 <210> 25
    <211> 21
   <212> DNA
    <213> Artificial Sequence
```

. <220>

<223> Primer

5 <400> 25 ttgttgacct ttcgggcgaa g

10 <210> 26

<211> 19

<212> DNA

15

<213> Artificial Sequence

20 <220>

<223> Primer

<400> 26

25 ttcagaagaa acggagcgg

<210> 27

30

<211> 20

<212> DNA

35 <213> Artificial Sequence

<220> 40

<223> Primer

<400> 27

tccaactctt ccctgtccag

45 20

<210> 28

50 <211> 21

<212> DNA

<213> Artificial Sequence

55

<220>

60 <223> Primer

```
<400> 28
     tctcttccag tttctaccat g
 5
     <210> 29
     <211> 21
10
     <212> DNA
     <213> Artificial Sequence
15
     <220>
    '<223> Primer
20
     <400> 29
     acaaattaca tccgaaacct g
     21
25
     <210> 30
     <211> 418
30
    <212> DNA
     <213> Lepista nuda
35
    <400> 30
    tactaaaggg aacaaaagct ggagctccac cgcggtggcg gccgctctag aactagtgga
40
    tcccccgggc tgcaggaatt cggcacgagg aactttctgc ctcgtttttt tgctcctact
    120
    gtttttctct tccagtttct accatgtcgc aagaaattgt tcaatcagga caaacctaca
45
    tcatcactaa cgccaaatcc ggcacagttg ttgacctttc gggcgaagac aacaaatcta
    240
    ttattggatt tcccaagcat ggaggaacaa atcagaggtg gaccetcaac tggacaggga
50
    agagttggac tttccgctcc gtttcttctg aaatgtatct tggcctgaat ggctcgccgt
    ctgatggaac aaaactggta gccgtgacca cccctgttga gtggcgcatc tggcacga
55
    418
    <210> 31
60
```

- 19 -

<211> 91

<212> PRT

5 <213> Lepista nuda

<400> 31

10

Met Ser Gln Glu Ile Val Gln Ser Gly Gln Thr Tyr Ile Ile Thr Asn 1 5 10 10

- 15 Ala Lys Ser Gly Thr Val Val Asp Leu Ser Gly Glu Asp Asn Lys Ser 20 25 30
- Ile Ile Gly Phe Pro Lys His Gly Gly Thr Asn Gln Arg Trp Thr Leu 35 40 45

Asn Trp Thr Gly Lys Ser Trp Thr Phe Arg Ser Val Ser Ser Glu Met

25

Tyr Leu Gly Leu Asn Gly Ser Pro Ser Asp Gly Thr Lys Leu Val Ala 70 75 80

30

Val Thr Thr Pro Val Glu Trp Arg Ile Trp His 85 90

- 35 <210> 32
 - <211> 211
- <212> DNA 40
 - <213> Lepista nuda
- 45 <400> 32

gcctcgtttt tttgctccta ctgtttttct cttccagttt ctaccatgtc gcaagaaatt 60

gttcaatcag gacaaaccta catcatcact aacgccaaat ccggcacagt tgttgacctt $50 \cdot 120$

tcgggcgaag acaacaaatc tattattgga tttcccaagc atggaggaac aaatcagagg

55 tggaccctca actggacagg gaagagttgg a 211

<210> 33

- 20 -

<211> 55 <212> PRT <213> Lepista nuda <400> 33 10 Met Ser Gln Glu Ile Val Gln Ser Gly Gln Thr Tyr Ile Ile Thr Asn Ala Lys Ser Gly Thr Val Val Asp Leu Ser Gly Glu Asp Asn Lys Ser 15 Ile Ile Gly Phe Pro Lys His Gly Gly Thr Asn Gln Arg Trp Thr Leu 20 35 40 Asn Trp Thr Gly Lys Ser Trp 50 25 <210> 34 <211> 493 30 <212> DNA <213> Lepista nuda 35 <400> 34 ttgttgacct ttcgggcgaa gacaacaaat ctattattgg atttcccaag catggaggaa 40 caaatcagag gtggaccctc aactggacag ggaagagttg gactttccgc tccgtttctt ctgaaatgta tcttggcctg aatggctcgc cgtctgatgg aacaaaactg gtagccgtga 45 180 ccacccctgt tgagtggcac atctggcacg acgaagttga cccttcaact tatcgtatct 50 ttgtaccttt caccacattc aacatggacc tctacgccca rggtagtgcc gcccctggta 300 cgcctatcac aacttggtat acatggaagg gyatccacca aacgtggagg tttgaactag 55 cttaggktca ggtttcggat gtaatttgtg tgtgtaaatc ttcttqqacc atgttgtgct

tttattgtac tccgcttgtt atcattatac ccacctatgt tgcaacatct ttttggatcc

60

caaaaaaaa aaa 493

5

<210> 35

<211> 120

10 <212> PRT

<213> Lepista nuda

15

<400> 35

Val Asp Leu Ser Gly Glu Asp Asn Lys Ser Ile Ile Gly Phe Pro Lys

1 10 15

20

His Gly Gly Thr Asn Gln Arg Trp Thr Leu Asn Trp Thr Gly Lys Ser 20 25 30

25

Trp Thr Phe Arg Ser Val Ser Ser Glu Met Tyr Leu Gly Leu Asn Gly 35 40 45

30 Ser Pro Ser Asp Gly Thr Lys Leu Val Ala Val Thr Thr Pro Val Glu 50 55 60

Trp His Ile Trp His Asp Glu Val Asp Pro Ser Thr Tyr Arg Ile Phe 35 65 70 75 80

Val Pro Phe Thr Thr Phe Asn Met Asp Leu Tyr Ala Gln Gly Ser Ala 85 90 95

40

Ala Pro Gly Thr Pro Ile Thr Thr Trp Tyr Thr Trp Lys Gly Ile His

45

Gln Thr Trp Arg Phe Glu Leu Ala 115 120

50 <210> 36

<211> 471

<212> DNA

22

<213> Lepista nuda

60 <400> 36

- 22 -

tctcttccag tttctaccat gtcgcaagaa attgttcaat caggacaaac ctacatcatc

actaacgcca aatccggcac agttgttgac ctttcgggcg aagacaacaa atctattatt 5

ggatttccca agcatggagg aacaaatcag aggtggaccc tcaactggac agggaagagt

10 tggactttcc gctccgtttc ttctgaaatg tatcttggcc tgaatggctc gccgtctgat

ggaacaaaac tggtagccgt gaccacccct gttgagtggc acatctggca cgacgaagtt 300

15 gaccetteaa ettategtat etttgtacet tteaceacat teaacatgga eetetacgee

caaggtagtg ccgccctgg tacgcctatc acaacttggt atacatggaa gggcatccac 20 420

caaacgtgga ggtttgaact agcttagggt caggtttcgg atgtaatttg t 471

25

<210> 37

<211> 706

<212> DNA

<213> Lepista nuda

35

<400> 37

tctcttccag tttctaccat gtcgcaagaa attgttcaat caggacaaac ctacatcatc

actaacgcca aatccggcac agttgttgac ctttcgggcg aagacaacaa atctagtaag

togtitttag toccatgitt tittitgica aaaaaaattg actgacatat titgictoca

45

gttattggat ttcccaagca tggaggaaca aatcagaggg taggtctaga aatgcacctc

gttaatattg gtttttattg acattcatga acagtggacc ctcaactgga cagggaagag 50

ttggactttc cgctccgttt cttctgaaat gtatcttggc ctgaatggct cgccgtctga

55 tggaacaaaa ctggtagccg tgaccacccc tgttgagtgg cacatctggc acgacgaagt 420

tgaccettca acttateggt gagtececta aatattaett gettgtggtt catactaata 480

- 23 -

cgtcgttcga agtatetttg tacetttcae cacattcaae atggacetet acgcccaggg 540

tagtgccgcc cctggtacgc ctatcacaac ttggtataca tggaagggta tccaccaaac 5 600

gtggaggttt gaactaggta gggcttgcga tctcacccgg atcctccatg aactaatgtg 660

10 atcacgtcgt gttctagctt aggttcaggt ttcggatgta atttgt
706

<210> 38

15

<211> 418

<212> DNA

20 <213> Lepista nuda

<400> 38

25 tcgtgccaga tgcgccactc aacaggggtg gtcacggcta ccagttttgt tccatcagac 60

ggcgagccat tcaggccaag atacatttca gaagaaacgg agcggaaagt ccaactcttc 120

30

cctgtccagt tgagggtcca cctctgattt gttcctccat gcttgggaaa tccaataata 180

gatttgttgt cttcgcccga aaggtcaaca actgtgccgg atttggcgtt agtgatgatg 35 240

taggtttgtc ctgattgaac aatttcttgc gacatggtag aaactggaag agaaaaacag 300

40 taggagcaaa aaaacgaggc agaaagttcc tcgtgccgaa ttcctgcagc ccgggggatc 360

cactagttet agageggeeg ceaeegeggt ggageteeag ettttgttee etttagta 418

45

<210> 39

<211> 211

50

<212> DNA

<213> Lepista nuda

55

<400> 39 tccaactctt ccctgtccag ttgagggtcc acctctgatt tgttcctcca tgcttgggaa 60

- 24 -

atccaataat agatttgttg tettegeeeg aaaggteaac aactgtgeeg gatttggegt 120

tagtgatgat gtaggtttgt cctgattgaa caatttcttg cgacatggta gaaactggaa 5 180

gagaaaaaca gtaggagcaa aaaaacgagg c 211

10

<210> 40

<211> 493

15 <212> DNA

<213> Lepista nuda

20

<400> 40

ttttttttt ttgggatcca aaaagatgtt gcaacatagg tgggtataat gataacaagc

25 ggagtacaat aaaagcacaa catggtccaa gaagatttac acacacaaat tacatccgaa 120

acctgamcct aagctagttc aaacctccac gtttggtgga trecetteca tgtataccaa

30

gttgtgatag gcgtaccagg ggcggcacta ccytgggcgt agaggtccat gttgaatgtg

gtgaaaggta caaagatacg ataagttgaa gggtcaactt cgtcgtgcca gatgtgccac 35 300

tcaacagggg tggtcacggc taccagtttt gttccatcag acggcgagcc attcaggcca 360

40 agatacattt cagaagaaac ggagcggaaa gtccaactet teeetgteca gttgagggte 420

cacctetgat ttgtteetee atgettggga aatccaataa tagatttgtt gtettegeee 480

45

gaaaggtcaa caa 493

50 <210> 41

<211> 471

<212> DNA

55

<213> Lepista nuda

60 <400> 41

- 25 -

acaaattaca toogaaacct gaccctaagc tagttcaaac ctccacgttt ggtggatgcc cttccatgta taccaagttg tgataggcgt accaggggcg gcactacctt gggcgtagag 5 120 gtccatgttg aatgtggtga aaggtacaaa gatacgataa gttgaagggt caacttcgtc 10 gtgccagatg tgccactcaa caggggtggt cacggctacc agttttgttc catcagacgg cgagccattc aggccaagat acatttcaga agaaacggag cggaaagtcc aactcttccc 15 tgtccagttg agggtccacc tctgatttgt tcctccatgc ttgggaaatc caataataga tttgttgtct tcgcccgaaa ggtcaacaac tgtgccggat ttggcgttag tgatgatgta 20 ggtttgtcct gattgaacaa tttcttgcga catggtagaa actggaagag a 471 25 <210> 42 <211> 706 30 <212> DNA <213> Lepista nuda 35 <400> 42 acaaattaca toogaaacot gaacotaago tagaacacga ogtgatoaca ttagttoatg 40 gaggatccgg gtgagatcgc aagccctacc tagttcaaac ctccacgttt ggtggatacc cttccatgta taccaagttg tgataggcgt accaggggcg gcactaccct gggcgtagag 45 gtccatgttg aatgtggtga aaggtacaaa gatacttcga acgacgtatt agtatgaacc 240 acaagcaagt aatatttagg ggactcaccg ataagttgaa gggtcaactt cgtcgtgcca 50 gatgtgccac tcaacagggg tggtcacggc taccagtttt gttccatcag acggcgagcc 55 attcaggcca agatacattt cagaagaaac ggagcggaaa gtccaactct tccctgtcca gttgagggtc cactgttcat gaatgtcaat aaaaaccaat attaacgagg tgcatttcta

480

.

60

<223> Xaa is glutamine or lysine

```
gacctaccct ctgatttgtt cctccatgct tgggaaatcc aataactgga gacaaaatat
     540
     gtcagtcaat tttttttgac aaaaaaaaac atgggactaa aaacgactta ctagatttgt
     tgtcttcgcc cgaaaggtca acaactgtgc cggatttggc gttagtgatg atgtaggttt
10
     gtcctgattg aacaatttct tgcgacatgg tagaaactgg aagaga
     <210> 43
15
     <211> 17
     <212> PRT
20
   <213> Lepista nuda
     <220>
25
    <221> MOD_RES
    <222> (1)..(1)
30 <223> ACETYLATION
    <220>
35
    <221> MISC_FEATURE
    <222> (2)..(2)
40 <223> Xaa is glutamine or lysine
    <220>
45
    <221> MISC_FEATURE
    <222> (4)..(4)
50
   <223> Xaa is leucine or isoleucine
    <220>
55
    <221> MISC_FEATURE
    <222> (6)..(6)
```

```
<220>
    <221> MISC_FEATURE
    <222> (9)..(9)
10 <223> Xaa is glutamine or lysine
    <220>
15
    <221> MISC_FEATURE
    <222> (12)..(12)
20 <223> Xaa is leucine or isoleucine
    <220>
25
    <221> MISC_FEATURE
    <222> (13)..(13)
30 <223> Xaa is leucine or isoleucine
    <400> 43
35
    Ser Xaa Glu Xaa Val Xaa Ser Gly Xaa Thr Tyr Xaa Xaa Thr Asn Ala
```

40 Lys